DERWENT-ACC-NO: 1983-706016

DERWENT-WEEK: 198328

TITLE: Mixed fertiliser with slow nitrogen release prodn. - by reacting dry urea with aldehyde then directly adding phosphorus and potassium salts

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PATENT-FAMILY:

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INT-CL (IPC): C05C009/00

ABSTRACTED-PUB-NO: DD 200083A

BASIC-ABSTRACT:

Prodn. of NPK fertilisers with slow release of nitrogen comprises first reacting solid urea with an aldehyde contg. at least 2C, then adding P and K salts directly to the N-contg. reaction mixt. Pref. the process is carried out at at least 50 deg.C and pref. aldehydes are crotonaldehyde, isobutyraldehyde and acetaldehyde, using 1 mole per 1-1.5 moles urea.

Claimed P salts are super- or double-phosphate; dicalcium phosphate; mono- or di-ammonium phosphate and alkali thermophosphate. Claimed K salts are the chloride and sulphate. The cost of drying the prod. is

reduced because no
water or other solvent is used, and the space-time yield in the urea-aldehyde
condensation is improved (cf. cases where the P and K salts are present during
condensation).

TITLE-TERMS: MIX FERTILISER SLOW NITROGEN RELEASE PRODUCE REACT DRY UREA
ALDEHYDE ADD PHOSPHORUS POTASSIUM SALT

DERWENT-CLASS: C04

CPI-CODES: C05-A01A; C05-B02A4; C10-A13D; C12-M10; C12-N09; C12-N10;

CHEMICAL-CODES:
Chemical Indexing M1 *05*
Fragmentation Code
H721 J471 K0 L4 L432 L499 M210 M211 M212 M213
M214 M215 M216 M220 M221 M222 M231 M232 M233 M262
M280 M281 M311 M312 M313 M314 M315 M320 M323 M331
M333 M340 M342 M383 M393 M423 M431 M510 M520 M530
M540 M620 M782 M903 P112 P113 R052 V743

Chemical Indexing M2 *01*
Fragmentation Code
A119 A940 C017 C100 C730 C801 C803 C804 C805 C806
C807 M411 M431 M782 M903 M910 P112 P113 R052

Chemical Indexing M2 *02*
Fragmentation Code
A119 A940 C108 C316 C540 C730 C801 C802 C803 C804
C805 M411 M431 M782 M903 M910 P112 P113 R052

Chemical Indexing M2 *03*
Fragmentation Code
A220 A940 B115 B701 B713 B720 B815 B831 C101 C108
C802 C803 C804 C805 C807 M411 M431 M782 M903 M910
P112 P113 R052

Chemical Indexing M2 *04*
Fragmentation Code
B115 B701 B713 B720 B815 B831 C101 C108 C500 C802
C804 C807 M411 M431 M782 M903 M910 P112 P113 R052

Chemical Indexing M2 *05*
Fragmentation Code

H721 J471 K0 L4 L432 L499 M210 M211 M212 M213
M214 M215 M216 M220 M221 M222 M231 M232 M233 M262
M280 M281 M311 M312 M313 M314 M315 M320 M323 M331
M333 M340 M342 M383 M393 M423 M431 M510 M520 M530
M540 M620 M782 M903 P112 P113 R052 V743

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0123U; 0343U ; 0432U ;
1625U ; 1678U ; 1731U
; 1748U ; 1755U ; 1757U ; 1773U ; 1787U ; 1913U

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